



POSTDOCTORAL POSITION

MODELING POPULATION DYNAMICS OF TICK BORNE PATHOGENS

**Department of Ecology, Evolution and Environmental Biology (E3B),
Columbia University, NY, US
Royal Melbourne Institute of Technology (RMIT), Melbourne, Australia.**

A post-doctoral position is available in the labs of Maria Diuk-Wasser, Department of Ecology, Evolution and Environmental Biology (E3B), Columbia University, New York City.

The applicant will join a collaborative project with Stephen Davis, Department of Mathematical and Geospatial Sciences, Royal Melbourne Institute of Technology (RMIT), Melbourne, Australia, to study the influence of pathogen interactions on the emergence of tick-borne diseases in the United States, funded by the joint NSF/NIH Program on Ecology and Evolution of Infectious Diseases (EEID). The candidate will develop a range of modeling approaches to study the ecological and evolutionary drivers of the emergence and geographic expansion of tick-borne pathogens, including *Babesia microti*, an emerging pathogen sharing tick vector and host with *Borrelia burgdorferi*, the Lyme disease agent. Extensive datasets are available from laboratory and field experiments, as well as longitudinal and spatially extensive collections to parameterize and validate the models.

Candidates should have a Ph.D. in Applied Mathematics, Statistics or a related quantitative field. A background in mathematical modelling of infectious diseases, theoretical ecology, spatial modelling or mathematical biology is highly desirable, in addition to having programming, statistical and quantitative skills.

The successful candidate must be capable of working independently in an interdisciplinary environment and have strong quantitative and writing skills evidenced by publication. Opportunities exist for collaboration with the Mailman School of Public Health, the Earth Institute, the American Museum of Natural History, the Wildlife Conservation Society and the EcoHealth Alliance.

To ensure consideration, please submit application by August 7, 2015, but the position will remain open until filled. The position is available immediately for 2 years and the postdoc is expected to travel between NY and Melbourne. Salary is commensurate with experience. Applications should include CV, statement of research interests, the names of three references and be sent to: mad2256@columbia.edu

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